



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/700,511	11/05/2003	Mohan G. Kulkarni	3095-010	5922

22429 7590 01/28/2005

LOWE HAUPTMAN GILMAN AND BERNER, LLP  
1700 DIAGONAL ROAD  
SUITE 300 /310  
ALEXANDRIA, VA 22314

EXAMINER

PEZZUTO, HELEN LEE

ART UNIT	PAPER NUMBER
----------	--------------

1713

DATE MAILED: 01/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/700,511

Applicant(s)

KULKARNI ET AL.

Examiner

Helen L. Pezzuto

Art Unit

1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) 6-25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☒ Claim(s) 4 is/are objected to.
- 8) ☒ Claim(s) 1-25 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

Art Unit: 1713

**DETAILED ACTION**

***Election/Restrictions***

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-5, drawn to a copolymer, classified in class 526, subclass 336.

II. Claims 6-18, drawn to a process of forming a copolymer, classified in class 526, subclass 89.

III. Claims 19-25, drawn to a process of forming a crosslinked polymer, classified in class 525, subclass 331.92.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions II and I are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case, the copolymer of Group I can be prepared by other viable and/or conventional polymerization process which does not require the formation of an inclusion complex as in Group II.

Art Unit: 1713

3. Inventions II and III are related as mutually exclusive processes. The process recited in Group III comprises post-polymerization or after-treatment crosslinking step which is not required in Group II. Conversely, the process in group II does not require an post-polymerization treatment step. Hence, they are distinctive inventions.

4. Inventions I and the product derived from Group III process are related as mutually exclusive species in an intermediate-final product relationship. Distinctness is proven for claims in this relationship if the intermediate product is useful to make other than the final product (MPEP § 806.04(b), 3rd paragraph), and the species are patentably distinct (MPEP § 806.04(h)). In the instant case, the intermediate product is deemed to be useful as adhesive and/or coating materials, and the inventions are deemed patentably distinct since there is nothing on this record to show them to be obvious variants. Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions anticipated by the prior art, the evidence or

Art Unit: 1713

admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

5. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, and as shown by their different classification, restriction for examination purposes as indicated is proper.

6. During a telephone conversation with Mr. William Beaumont on 1/18/05 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-5. Affirmation of this election must be made by applicant in replying to this Office action. Claims 6-25 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

7. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Art Unit: 1713

***Claim Objections***

8. Claim 4 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Currently, claim 4 depends on claim 1, which does not have antecedent basis of the recited "aromatic divinyl compound". Do applicants intend its dependency on claim 3?

9. In claim 3, line 6, vinyl methacrylate and vinyl acrylate are listed as a Markush member of "vinyl monomer with multiple unsaturation". As recited, these monomers appear to be monounsaturated. Please clarify.

***Claim Rejections - 35 USC § 102***

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claims 1-3, and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Trieselt et al. (US-215).

Art Unit: 1713

US 4,897,215 to Trieselt et al. discloses a detergent composition, comprising a water-soluble copolymer. Prior art copolymer comprises 95.5 to 15 mol% of one or more monoethylenically unsaturated C<sub>3</sub>-C<sub>6</sub> monocarboxylic acids (i.e. (meth)acrylic acid), and 0.5 to 20 mol% of one or more co-monomers containing two or more ethylenically unsaturation sites, such as ethylene glycol di(meth)acrylates (col. 7, lines 15-21; working examples). Thus, anticipating the present claims.

***Claim Rejections - 35 USC § 103***

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

13. Claims 1-3, and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matz et al. (US-715).

US 6,691,715 to Matz et al. discloses a process of making water-soluble polymers, comprising quaternary ammonium monomers, up to 80 mol% of (meth)acrylic acid, and at least one multiple unsaturated co-monomers, such as

Art Unit: 1713

ethylene glycol dimethacrylate, as well as up to 70 mol% of other monoethylenically unsaturated co-monomers such as alkyl (meth)acrylates and acrylamides (col. 5, lines 42-67). Accordingly, it would have been obvious and fully within the purview of one skilled in the art to select a monoethylenically unsaturated and a multiple ethylenically unsaturated monomers as taught to formulate a water-soluble polymer, motivated by the reasonable expectation of success.

14. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huang (US-901).

US 2002/0110901 A1 to Huang discloses a method of preparing surface imprint composition which comprises a matrix material. Specifically, prior art matrix material is a polymerized product, which is soluble in one of the solvent/solution phase, and is derived from one or more polymerizable monomers (page 6, [0059]). Suitable polymerizable monomers disclosed include the instant monounsaturated vinyl monomer species expressed in claim 2, as well as the multiple unsaturated vinyl monomer species expressed in claims 3-4 (i.e. divinyl benzene, ethylene glycol di(meth)acrylate). Conventional polymerization methods were taught (page 6, [0065]; page 15, claims 1-3).



Art Unit: 1713

Accordingly, the selection of single and multiple unsaturated monomers as applicants would be readily envisaged by one of ordinary skill in the art, motivated by the reasonable expectation to form a soluble matrix material as taught in the prior art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Helen L. Pezzuto whose telephone number is (571) 272-1108. The examiner can normally be reached on 8 AM to 4 PM, Monday thru Friday.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Application/Control Number: 10/700,511

Page 9

Art Unit: 1713



Helen L. Pezzuto  
Primary Examiner  
Art Unit 1713

hlp